

SIEMENS

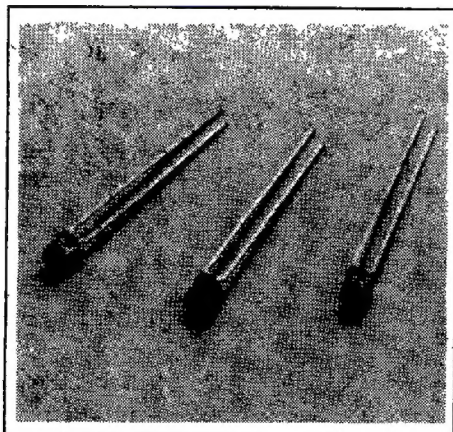
T 41-21

SUPER-RED LS 3180

YELLOW LY 3180

GREEN LG 3180

T1 (3 mm) WIDE ANGLE LED LAMP



FEATURES

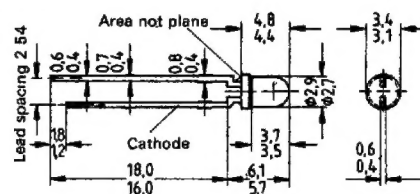
- Colors: Super-Red, Yellow, Green
- Lens: Red Diffused, Yellow Diffused, Green Diffused
- Low Power Dissipation
- Low Self-Heating
- Rigid Construction
- Suitable for Multiplex Operation
- Wide Angle 100°
- Cathode: Shorter Solder Tab

DESCRIPTION

The LS/LY/LG 3180 are T1 (3 mm) wide angle LED lamps. The 3 mm plastic package has colored diffused lenses to match the emission color, 2.54 mm lead spacing, and solder tabs (17 mm).

Applications include switching and ON/OFF displays, and back lighting.

Package Dimensions mm



Maximum Ratings

Reverse Voltage (V_R)	5 V
Forward Current (I_F)	45 mA
Surge Current (I_{FS} , $t \leq 10 \mu s$)	1 A
Operating Temperature (T_{OP})	-55°C to +100°C
Storage Temperature (T_{STA})	-55°C to +100°C
Junction Temperature (T_J)	+100°C
Power Dissipation (P_{TOT} , $T_A = 25^\circ C$)	150 mW
Thermal Resistance: Junction/Air (R_{THJA})	600 K/W

Characteristics ($T_A = 25^\circ C$)

Parameter	Symbol	LS 3180 Super-Red	LY 3180 Yellow	LG 3180 Green	Unit
Wavelength at Peak					
Emission ($I_F = 20$ mA)	λ_{PEAK}	635	586	565	nm
Dominant Wavelength	λ_{DOM}	628	590	567	nm
Viewing Angle at 50% I_V	ϕ	100	100	100	Deg.
Forward Voltage ($I_F = 10$ mA)	V_F	2.0 (≤ 6)	2.0 (≤ 6)	2.0 (≤ 6)	V
Reverse Current ($V_R = 5$ V)	I_R	0.01 (≤ 10)	0.01 (≤ 10)	0.01 (≤ 10)	μA
Capacitance ($V_R = 0$ V, $f = 1$ MHz)	C_o	12	10	45	pF
Switching Times ($I_F = 100$ mA, $t = 10 \mu s$)					
Rise Time of I_V I_V from 10% to 90%	t_r	300	300	1000	ns
Fall Time of I_V I_V from 90% to 10%	t_f	150	150	450	ns

Luminous Intensity I_V (mcd)*

Part Number	Min.	Max.	Test Condition	Part Number	Min.	Max.	Test Condition
LS 3180-GK	1.6	12.5	10 mA	LY 3180-HL	2.5	20	10 mA
LS 3180-H	2.5	5	10 mA	LY 3180-J	4	8	10 mA
LS 3180-J	4	8	10 mA	LG 3180-EH	0.63	5	10 mA
LS 3180-JM	4	32	10 mA	LG 3180-G	1.6	3.2	10 mA
LS 3180-K	6.3	12.5	10 mA	LG 3180-GK	1.6	12.5	10 mA
LY 3180-FJ	1	8	10 mA	LG 3180-H	2.5	5	10 mA
LY 3180-G	1.6	3.2	10 mA				
LY 3180-H	2.5	5	10 mA				

* Luminous intensity factor of I_V of one packaging unit $\frac{I_{V MAX}}{I_{V MIN}} \leq 2$

See graph numbers 1, 2D, 3E, 4A, 5D, 6A, 7A, 8, 9, 10 on pages XX.